# Material Safety Data Sheet

**PSA (Primary Secondary Amine) - Bulk Sorbent, 100g, Part Number 5982-5753**

## 1. Product and company identification

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>PSA (Primary Secondary Amine) - Bulk Sorbent, 100g, Part Number 5982-5753</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Material uses</strong></td>
<td>Analytical chemistry. 100 g</td>
</tr>
</tbody>
</table>

| **Supplier/Manufacturer** | Agilent Technologies, Inc. Logistics Center - Americas 500 Ships Landing Way New Castle, Delaware 19720 |

<table>
<thead>
<tr>
<th><strong>Part No.</strong></th>
<th>5982-5753</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Validation date</strong></td>
<td>09/2/2010</td>
</tr>
<tr>
<td><strong>In case of emergency</strong></td>
<td>1-302-633-8777 1-877-4 Agilent (Information Telephone Number)</td>
</tr>
</tbody>
</table>

## 2. Hazards identification

**Physical state**: Solid. [Powder.]

**Odor**: Faint odor.

### Emergency overview

**Hazard statements**: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

**Precautions**: No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.

**Routes of entry**

- **Eye contact**
- **Inhalation**
- **Ingestion**

### Potential acute health effects

**Inhalation**: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Ingestion**: No known significant effects or critical hazards.

**Skin**: No known significant effects or critical hazards.

**Eyes**: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

### Potential chronic health effects

**Chronic effects**: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Carcinogenicity**: No known significant effects or critical hazards.

**Mutagenicity**: No known significant effects or critical hazards.

**Teratogenicity**: No known significant effects or critical hazards.

**Developmental effects**: No known significant effects or critical hazards.

**Fertility effects**: No known significant effects or critical hazards.

**Target organs**: Not available.

### Over-exposure signs/symptoms

**Inhalation**: Adverse symptoms may include the following: respiratory tract irritation coughing

**Ingestion**: No specific data.

**Skin**: No specific data.

**Eyes**: Adverse symptoms may include the following: irritation redness

**Date of issue**: 09/2/2010 5982-5753
PSA (Primary Secondary Amine) - Bulk Sorbent, 100g, Part Number 5982-5753

2. Hazards identification

Medical conditions aggravated by over-exposure : None known.

See toxicological information (section 11)

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSA</td>
<td>None assigned.</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5. Fire-fighting measures

Flammability of the product : No specific fire or explosion hazard.

Extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Suitable : None known.

Not suitable : None known.

Special exposure hazards : No action shall be taken involving any personal risk or without suitable training.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- nitrogen oxides
- metal oxide/oxides

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing dust. Put on appropriate personal protective equipment (see section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Date of issue : 09/2/2010 5982-5753
6. Accidental release measures

Methods for cleaning up: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling: Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Avoid breathing dust.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>US ACGIH</th>
<th>TWA (8 hours) ppm</th>
<th>mg/m³</th>
<th>STEL (15 mins) ppm</th>
<th>mg/m³</th>
<th>Ceiling ppm</th>
<th>mg/m³</th>
<th>Notations</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSA</td>
<td>-</td>
<td>- 10 [a]</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>[a]</td>
</tr>
</tbody>
</table>

Form: [a]Inhalable  [b]Respirable

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles.

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Date of issue: 09/2/2010 5982-5753
8. Exposure controls/personal protection

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Other protection: Not available.

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid. [Powder.]</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammable limits</td>
<td>Not available.</td>
</tr>
<tr>
<td>Color</td>
<td>White. / Off-white.</td>
</tr>
<tr>
<td>Odor</td>
<td>Faint odor.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling/condensation point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in the following materials: cold water and hot water.</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>No specific data. Avoid creating dusty conditions and prevent wind dispersal.</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Reactive or incompatible with the following materials: acids. Incompatible with: HF</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
</tbody>
</table>

11. Toxicological information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Conclusion/Summary: Not available.</td>
</tr>
<tr>
<td>Chronic toxicity</td>
<td>Conclusion/Summary: Not available.</td>
</tr>
<tr>
<td>Irritation/Corrosion</td>
<td>Conclusion/Summary: Not available.</td>
</tr>
<tr>
<td>Sensitizer</td>
<td>Conclusion/Summary: Not available.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Conclusion/Summary: Not available.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Conclusion/Summary: Not available.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>Conclusion/Summary: Not available.</td>
</tr>
</tbody>
</table>

Date of issue: 09/2/2010 5982-5753
11. Toxicological information

Reproductive toxicity

Conclusion/Summary : Not available.

Synergistic products : Not available.

12. Ecological information

Ecotoxicity : May cause long-term adverse effects in the aquatic environment.

Conclusion/Summary : Based on chemical experience, will degrade over very long period of time.

Octanol/water partition coefficient : Not available.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information

TDG / IMDG / IATA : Not regulated.

15. Regulatory information

WHMIS (Canada) : Not controlled under WHMIS (Canada).

Canadian lists

Canadian NPRI : This material is not listed.

CEPA Toxic substances : This material is not listed.

Canada inventory : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
16. Other information

Label requirements: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

Date of issue: 09/2/2010
Date of previous issue: No previous validation.
Version: 1

Indicates information that has changed from previously issued version.

Notice to reader

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